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1 National Research Council Bull. No. 109, 1943, pp. 18-21.

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Wounds Of The Heart With Case Reports

ALTON G. BROWN, M.D., CHARLESTON, S. C.

This paper brings to date a review of heart wounds treated by operation at Roper Hospital, Charleston, S. C. adding six cases since 1944 to the review of Maguire[1] (Table 1) published at that time. Two cases operated upon by the author in the past year are reported in some detail. Maguire cites 7 cases of penetrating heart wounds operated upon at Roper Hospital from 1924 through 1944, with three recoveries. Since 1944 there have been an additional 6 cases operated upon with 5 recoveries (Table 2), though one of these died a few months later of complications resulting from spinal cord injury received at the same time. In addition to the wounds of the heart proper there have been an additional 5 cases with pericardial damage and hemopericardium treated successfully by operation and not included in this report.

Stab and gunshot wounds of the heart are by no means rare in civilian practice, particularly in southern cities where the percentage of negro population is high. Up to the latter part of the last century all heart wounds were considered hopeless and even a suggestion that some day they might be sutured was scoffed at. In the past few years these wounds have been succesfully repaired in increasing numbers.

The first attempt at repair of a human heart was by Cappelin in 1895. The first successful repair was done by Rehn of Frankfort in 1896. An idea of the frequency of heart wounds is indicated by Bigger[2] who stated that .1% of all patients on the surgical service of the Medical College of Virginia Hospital over a 9 year period were heart wounds. Elkin[3] states that 2% of penetrating wounds of the chest seen at Emory University Division of Grady Hospital in Atlanta were heart wounds. These figures would be much greater if heart wounds resulting in death before the victim reaches the hospital were included. The autopsies for this area are done by the Pathology Department of The Medical College of The State of South Carolina and a review of their files covering the period from 1924 to 1946 shows autopsy reports performed on 40 cases of heart wounds dead upon arrival at the hospital or dying shortly thereafter before they could be operated upon.

In 1940 Bigger[2] reported 25 cases of heart wounds operated upon in a 9 year period at the Medical College of Virginia Hospital. Nine died, a mortality of 36%. Elkin[3] in 1941 reviewed 38 cases from Grady Hospital with 16 deaths. In 1945 Elkin[4] added 23 cases treated since 1940. There were five deaths in this series, a mortality of 22%, quite an improvement over the previous series. Linder and Hodo[5] state that the first successful case treated at Hillman Hospital, Birmingham, was in 1935. Since then there have been 28 cases operated upon with 12 deaths, a mortality of 43%. Three of these cases had the pericardium only involved. Griswold and Maguire[6] report 40 cases of heart wounds. Of these 13 died before operation. Five were treated conservatively with 1 death, and 22 were operated upon with 6 deaths.

A stab or bullet wound of the heart muscle or into the heart chamber usually causes a massive hemorrhage. If the openings are large the hemorrhage may be to the outside, or a rent in the pleura and pericardium may allow massive hemorrhage into the pleural cavity. Often there is a combination with bleeding into the pleural cavity and to the outside, but with the opening in the pericardium not allowing free escape of the blood and the pericardial sac rapidly becoming distended with blood. Slow filling of the pericardium can be compensated for but rapid filling acutely compresses the heart muscle and the veins emptying into the heart chambers, producing tamponade. The normal venous pressure is 75-120 mm water and this may temporarily be raised to 400 mm of water with survival. Cardiac tamponade decreases the cardiac output and raises the venous pressure. The arterial pressure falls and if not soon corrected cerebral anemia causes coma. At this stage the patient has distended veins, a slow pulse, possibly

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TABLE NO. 1

Cardiorrhaphies at Roper Hospital—1924-1944

Case No.	Year	Sex	Age	Weapon	Time from injury to operation	Location	Result	Comment
33516	1924	M	19	Knife	2 hrs.	Right Auricle	Recovered	Essentially uneventful postoperative course. Rt. pleural and pericardial effusion, sterile.
95376	1937	M	30	Knife	90 min.	Left Vent. and pulmonary artery	Died	Complicating hemothorax, died on table, hemorrhage, tamponade.
95429	193[illegible]	M	25	Bullet	90 min.	Left ventricle	Died	Laceration of myocardium over but not into left ventricle. Laceration left lung, massive hemothorax. Death 12 hours postop. Bronchopneumonia.
4382	1941	M	18	Knife	90 min.	Right auricle	Died	Died while heart being sutured apparently due mainly to interference with conduction system since laceration severed main bundle.
21425	1943	F	49	Knife	50 min.	Left vent. & coronary artery	Died	Died on operating table. Also open pneumothorax, left, and massive hemothorax, right. Miserable risk but operation only chance.
20049	194[illegible]	M	20	Knife	2 hrs.	Right vent.	Recovered	Developed tension pneumothorax left. Had closed thoracotomy for drainage 48 hrs. Otherwise uneventful recovery. No sequela.
21840	1943	M	22	Knife	2 hrs.	Right vent.	Recovered	Uneventful postoperative course with no sequela.

paradoxical if palpable, cyanosis and dyspnea. Not all wounds are so extensive and a small wound may allow a hemopericardium with some tamponade which may be sufficient to cause bleeding to stop and conservative treatment with or without aspiration of blood may relieve without operation.

The diagnosis of heart injury in the more serious cases is usually fairly obvious, with a stab or bullet wound in a location consistent with heart penetration, though it is well to remember that the course of a bullet may be quite devious. Low arterial pressure, high venous pressure with distended neck veins, or shock with signs of massive internal or external hemorrhage may lead one to suspect a wound of the heart. In cases not too fulminating fluoroscopy may be indicated and may show a heart not greatly enlarged but with little or no visible pulsation.

The treatment indicated depends upon the degree and speed of tamponade and the amount of external hemorrhage or of hemothorax. The majority of cardiac wounds die before reaching the hospital or before emergency operation can be done, as proven by autopsy records for this area. On the other hand a few have minor bleeding and tamponade and Blalock and Ravitch[7] believe that nonoperative treatment in these cases is indicated. In between these two extremes are a few who live long enough to get to a hospital yet must have emergency operation. Those likely to expire rapidly from massive hemorrhage without tamponade may be saved by rapid transfusions with whole blood and plasma and rapid surgery to control bleeding. Others with signs of tamponade without massive blood loss may be temporarily relieved by pericardial aspiration while preparing for operation.

General anesthesia with endotracheal intubation and positive pressure available is preferable since the pleura is injured in a great number of these cases. The incision depends upon the site of wound and the likely chamber involved. Elkin[3] advises a transverse incision across the sternum, mainly to the left, with splitting of the pectoralis major muscle and removal of costal cartilages as indicated. Some have used a median sternotomy but this is a more difficult and time consuming procedure. We have used a horseshoe type of curved incision to the left of the sternum over the 3rd, 4th, and 5th costal cartilages with the flap thus formed retracted for exposure. All agree that if the pleura is not damaged it should be carefully reflected and damage avoided if possible. The pericardium is opened widely and the blood aspirated from within the pericardial cavity. This usually relieves tamponade and the heart action rapidly becomes more vigorous and the spurts of blood from the heart wound become obvious. A stay suture through the apex of the heart may be of great help in steadying the heart. A finger placed over the myocardial wound will control the bleeding temporarily while sutures are being placed. One is cautioned not to insert the finger into the opening as the muscle may tear enlarging the wound. Suturing the wound with fine silk is preferable using either single or mattress sutures. If the wound is adjacent to a coronary vessel a mattress suture may be placed beneath the vessel. The sutures should not go into the heart chamber as they may cause formation of intracardiac thrombi. If bleeding is difficult to control absorbable gelatin sponges or other such preparations may be life saving, sutured over the wound. The pericardium is closed loosely to allow drainage into the pleural cavity if the pleural cavity has been en-

tered. If the pleural cavity has been entered it is believed advisable to drain it by a catheter in the lower intercostal space in the axillary line, connecting this with underwater drainage. The wound is then closed in layers. If the wound does not involve the pleural cavity some believe a small rubber tissue drain should be placed down to the pericardium, but most seem to think pericardial closure with aspirations of fluid if necessary are preferable. During and after operation blood is given freely, pumped in if necessary, and blood from the pericardial and pleural cavities may be used for an autotransfusion. Oxygen, chemotherapy, and general supportive treatment postoperatively are given as indicated. Most cases which survive show no permanent damage though follow-up of Linder and Hobo[5] revealed dyspnea on exertion in three cases with permanent electrocardiograph changes in one. Since the myocardial damage may include a coronary vessel it is believed safer to keep these patients quiet in bed for three weeks as one would a recent coronary occlusion.

The first 4 cases in Table 2 are commented on briefly:

Case 38020—this patient was in deep shock on admission with much external blood loss, laceration of left lung and massive hemothorax. Heart stopped beating while incision being made. There was a massive hematoma about heart, and though massage started beating again patient died on the table shortly afterwards.

Case 41815: This patient was in deep shock with marked cardiac tamponade. When blood transfusion attempted blood backed up into the bottle. Pleura was entered during operation, but caused no great trouble.

Case 44970: This patient had multiple injuries by a bullet with laceration of spinal cord, left pleura, left diaphragm, stomach, liver, pericardium and heart. The pericardial wound was small and the nick in heart muscle was small with only about 50 cc of blood in pericardial cavity. Other wounds were of greater importance, and spinal cord severance finally caused the death.

Case 48602: This patient was in deep shock with B. P. and pulse not obtainable on admission. There was left hemo-pneumothorax and it was believed heart damaged with tamponade in spite of no vein distention. Operation showed a small wound of the cardiac muscle but with little blood in pericardial cavity and this patient could likely have been treated successfully conservatively.

The last two cases in Table 2, operated upon by the author are reported in more detail:

Case 1—Roper Hospital No. 50154—a 32 year old colored male was brought to the emergency room August 17, 1946, a few minutes after having been stabbed with a knife in a drunken brawl. He was semicomatose with alcoholic odor on his breath. There was a 1 cm. stab wound 2 cm medial to and 1 cm above the left nipple. The wound was sucking air and bleeding moderately. There were signs of a large left sided hemothorax and the heart sounds were weak and distant. Blood pressure was not obtainable and the pulse at the wrist was very weak. There was moderate increase in venous distention. Type (0) blood administration was started in both cubital veins and the patient was taken immediately to the operating room. After cleaning and preparation of the chest under endotracheal anesthesia a horseshoe shaped incision was made to the left of the

TABLE 2

Cardiorrhaphies at Roper Hospital — 1945-1946

Case No.	Year	Sex	Age	Weapon	Time from injury to operation	Location	Result	Comment
38020	1945	M	26	Knife	15 min.	Left vent.	Died	Pulseless, very serious condition. Heart stopped beating before exposed. Wound sutured, heart massaged but beat only few minutes more.
41815	1945	M	17	Knife	1 hr.	Right vent.	Recovered	Developed left hemothorax and pericardial effusion. Treated by aspiration. Recovered with no sequela.
44970	1946	M	15	Bullet	3 hrs.	Right vent.	Recovered	Myocardial laceration, ventricle not entered. Recovered from Pulmonary and heart wounds but died a few months later from complications resulting from spinal cord severance.
48602	1946	M	22	Knife	1½ hrs.	Left vent.	Recovered	Laceration of myocardium with hemopericardium. Chamber not entered. Uneventful recovery.
50154	1946	M	32	Knife	30 min.	Right vent.	Recovered	Through and through wounds anterior and posterior walls of ventricle. Uneventful recovery, no sequela.
51781	1946	M	29	Knife	1 hr.	Left auricle	Recovered	Developed pericardial effusion and fever. Recovered after the pericardium aspirated and penicillin given. No sequela.

sternum with the horizontal limbs in 2nd and 5th interspaces. The 3rd, 4th and 5th costal cartilages were cut and the flap of chest wall thus formed was elevated to the left. The intercostal and internal mammary vessels were ligated. Blood was spurting out of a laceration in the pericardium into the left pleural cavity where there was a massive hemothorax and lung collapse. The laceration in the pericardium was enlarged and the blood in the pericardial sac aspirated. A bleeding point in the right ventricle became obvious. A finger was placed over this wound and a suture placed in the apex for traction. Unfortunately there was bleeding about this stay suture and additional sutures had to be placed and a gelatin sponge tied in place to control the bleeding from the needle holes. Since the needles used were larger than the silk they were discarded and (000) atraumatic catgut sutures used to close the laceration in the right ventricle. When the anterior wound in the right ventricle was sutured a spurting wound was found in the posterior surface of the right ventricle and the heart was rotated and this repaired in like manner. The pericardium was closed loosely and blood evacuated from the pleural cavity. A No. 20 double eye urethral catheter was brought out a stab wound in the 9th intercostal space in the axillary line. The catheter was connected to under water drainage tube. The lung was expanded by positive pressure and the chest wound closed in layers with silk sutures. Bronchoscopy was then performed to remove excess secretions from the tracheobronchial tree. The patient was given 2,000 cc of whole blood before and during the operation. At the end of the operation his B. P. was 90/50. He was placed in an oxygen tent, given penicillin and supportive treatment as indicated. The drainage tube was removed after 24 hours. There was an uneventful postoperative recovery and serial electrocardiograms showed signs of pericarditis later returning to normal. The patient was discharged on the 15th postoperative day. He has been followed for seven months and is in good health and working as a laborer.

Case 2: Roper Hospital No. 51781. This 29 year old colored male was brought to the emergency room 10-12-46, a few minutes after being stabbed by his wife. He was in deep shock and was bleeding from a 3 cm wound in the 2nd interspace on the left 3 cm from the sternum. Blood spurted from the wound when the patient coughed. The patient was markedly dyspneac and the heart sounds were weak and distant. When first seen there were no signs of increased venous pressure, but the venous pressure rapidly increased and the neck veins became distended. The heart was shifted to the right by a left hemothorax. Administration of blood was started in both cubital veins, and he was taken immediately to the operating room. Here he was given an endotracheal anesthesia while his chest was being prepared and a thoracentesis being done. A horse-shoe shaped incision was made to the left of the sternum pver the 3rd, 4th, and 5th costal cartilages, with the upper limb of the incision passing through the wound of entrance. The 2nd, 3rd and 4th costal cartilages were severed and bleeding from intercostal and internal mammary vessels controlled by ligation. There was a massive hemothorax on the left and a 2 cm laceration in the upper pericardial sac through which blood spurted with each heart beat. The heart was beating slowly and feebly because of the tamponade. The pericardium was opened widely and blood aspirated from its cavity. A laceration was found in the left auricle and a finger placed over this laceration controlled the bleeding. Three mattress sutures of (000) atraumatic catgut were placed and a piece of absorbable gelatin sponge tied over the wound. This controlled the bleeding and the heart beat increased in frequency and force. Blood was evacuated from the pericardial and pleural cavities and the pericardium sutured loosely. A size 20 urethral catheter was brought out the pleural space through a stab wound in the axillary line in the 9th intercostal space. This catheter was connected to an under-water drainage tube. The lung was expanded with positive pressure and the chest closed in layers with interrupted silk. During the operation 2,000 cc of whole blood was given. At the end of the operation the B. P. was 90/50. The patient was placed in an oxygen tent and given penicillin and other supportive treatment. The catheter was removed from chest after 48 hours. The patient ran a febrile course for a few days and developed a moderate pericardial effusion, sterile. This was controlled by two aspirations. The electrocardiogram showed changes of acute pericarditis but followup tracings showed a return to approximately normal by time of discharge. Patient discharged on 24th postoperative day. Followups show after 4 months patient well and working.

SUMMARY

1. Since 1944 there have been 6 cases of heart wounds operated upon at Roper Hospital, Charleston, S. C., with a successful outcome in 5. These are added to the 7 previously reviewed and 2 recent cases are reported in detail.

2. Traumatic wounds of the heart are being successfully treated by operation more frequently now than up to 1935.

3. The former mortality of approximately 50% in cases operated upon is now being decreased throughout the country.

4. Serious heart wounds require prompt blood transfusions and operation. Absorbable gelatin sponges may be of great help in controlling the hemorrhage.

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Emergency Tracheotomy

FRANK WARDER, M.D., ANDERSON, S. C.

The prevalence of diphtheria in this section of South Carolina during the recent months, combined with the large number of tracheotomies performed in connection with this disease, makes it pertinent that a review of tracheotomies and their care be given. This is not presented with the hope of bringing forth any new light on the subject, but rather as a restatement of established principles. There is always the possibility that every physician may, at sometime during the course of his practice, be confronted with a case of laryngeal obstruction that will countenance no delay in providing the patient with an adequate airway.

There are only two important indications denoting obstruction to the air passages high enough in the tracheo-bronchial tree to be relieved by tracheotomy. The first of these is indrawing. This indrawing is seen in the suprasternal notch, the supraclavicular spaces, the intracostal spaces, and the epigastrium. The most important of these four is the sucking in at the suprasternal notch. Various conditions may cause indrawing at the other named locations but if tracheotomy is to relieve the respiratory embarrassment, the indrawing must be found at the suprasternal notch. The other important indication for tracheotomy is restlessness. If the child has reached the degree of obstruction where the use of his accessory muscles of respiration is necessary for life, he is of course unable to sleep. He presents a restless, anxious appearance, is "all over the bed," and will not take nourishment. These children are often unable to spare the time in their struggle for oxygen to swallow even a few sips of liquid. They may doze off for a few moments but immediately become wide awake when the muscles controlled by the respiratory center are not able to keep down the rising CO_2 in the blood stream, hence the restless, anxious appearance. Sedatives are often given at this stage and their use cannot be too forcefully comdemned. This type of medication should never at any time be given in a case, or suspected case, of respiratory obstruction. Often the patient's life itself depends upon his ability to keep the accessory muscles of respiration in action. It is also true that narcotics thicken the secretions in the respiratory apparatus and make their expulsion through the glottis more difficult.

Stridor in varying degrees is usually present but is not a necessary indication for surgical interference in itself. It should be stressed that cyanosis is usually a terminal affair, and one should never wait for its appearance before doing a tracheotomy. That is, when the other two indications, namely suprasternal indrawing and marked restlessness are present. It is true that these cases usually have a slightly ash gray appearance, but true cyanosis may never appear until death suddenly occurs.

Retro-pharyngeal abscess in small children can present a picture identical with laryngeal obstruction and must be kept in mind in order to prevent an unnecessary tracheal incision.

If time allows, the patient to be tracheotomized should be placed upon a flat surface with the head in careful alignment with the body and with some object beneath the shoulders to aid in elevation of the chin. A high incision through the thyroid or cricoid cartilages as advocated in years past should never be done. It is possible that a few seconds may be saved in this maneuver but the chances of a permanent stenosis of the individual's airway or a permanent loss of voice are too great. Rather, the incision should be in the region of the third, fourth, or fifth tracheal rings. No matter how short the time, it is not wise to attempt to incise the trachea and over-lying soft tissues with one stroke. In small children, it is easy to miss the trachea completely, sever large vessels, or pass through the trachea into the esophagus. The left hand should be placed with thumb and forefinger on opposing anterior margins of the sterno masto'd muscle. Pressure is then made to throw the trachea into relief as much as possible and a bold incision made from the lower border of the thyroid cartilage to the suprasternal notch. One should attempt to carry this incision

only through the skin, superficial fascia, cervical fascia, and possibly the ribbon muscles. Then by palpation with the left index finger in the wound, the point of the knife is guided to the anterior tracheal wall and a single, wide, vertical incision made. The thyroid isthmus should be ignored and cut if it lies over the trachea in the region where the incision should be made. The final incision into the trachea should be made on expiration if the patient is very young and tracheal collapse occurs on each inspiratory effort. This of course is to prevent damage to the posterior tracheal wall and esophagus. Also, if more than one incision is made through the tracheal cartilages, intervening areas will slough and a tracheal stenosis may result. Any convenient object may be used to hold the tracheal incision apart until a suitable tracheotomy cannula may be obtained.

Respiratory obstruction of several days duration causes a change in the CO_2 threshold of the respiratory center. Much more CO_2 is required to "trip" the center. When by means of a tracheotomy, the patient suddenly secures an abundance of oxygen in his blood stream, the respiratory center ceases temporarily to function. The patient, after a few deep breaths, utterly exhausted from his struggle to obtain air, usually falls into a very deep sleep bordering on coma. Therefore, they must be closely watched for the first thirty minutes after a free airway is obtained. Artificial respiration will sometimes be required until the respiratory center can adapt itself to the gaseous changes in the blood stream.

It might be well to mention the fact that following the initial incision into the neck the thymus gland causes a bubbling of air in and out of the tissues on respiratory movements. This may erroneously lead to a belief that the trachea has been opened, when actually it is still intact.

The emergency tracheotomy wound is often wide and gaping. Regardless of this fact, sutures to close it will serve no purpose in such a contaminated area. Sutures may serve only to cause emphysema by blocking off the escape of air which leaks around the tracheal cannula. They also form pockets in the soft tissues which trap contaminated secretions.

The patient depending upon a tracheotomy for an emergency airway should not draw an unwatched breath, until such time as he is again able to breathe through the normal route. Breathing should be quiet and any noise on either inspiration or expiration is a danger signal. Suction must be frequently applied by means of a small catheter with multiple openings. Often the secretions are so viscid that it is necessary to instill a dropper full of normal saline containing a very small amount of adrenlin directly into the trachea. The secretions are thus diluted, and more easily aspirated. Crusting in the trachea and bronchi may become a factor for two reasons: 1. The mucous membrane may be so damaged by infection that the cilia and mucous glands do not function properly and secertions pile up and cause crusting, 2. The nasal mucosa no longer moistens the inspired air, and when the humidity of the air in the patient's room is low, excessive drying within the tracheobronchial tree occurs.

Ideally, a wet and dry bulb thermometer should hang near the patient's bed. The temperature should be kept between 70 and 72 (humidity is too difficult to maintain at higher temperatures.) Through the use of a humidifier, preferably one of the new type that emits a cold mist, humidity of above 50% should be maintained.

Each time the tracheotomy tube is aspirated by means of a catheter and suction, the inner cannula should be removed and thoroughly cleaned by pulling a piece of gauze through it. The outer tracheotomy cannula should be changed and a clean one inserted at least once every twenty-four hours. The string around the neck which holds the tube in place should be snug enough so that the tip of the little finger may be inserted beneath it only with difficulty. This is necessary, so that during blasts of coughing the tube may not be forced out where it will rest on the tracheal wall instead of in the trachea. If this occurs the tracheal incision may "pinch off" and the patient die before the physician can be obtained. A properly fitting tracheal cannula should occupy approximately one-half the diameter of the trachea. Then, when the time arrives that the patient's glottis is again adequate for respiration, the tracheal cannula may be corked for at least twenty-four hours as a test preceding decannulation.

It is not within the scope of this paper to discuss other aspects of the diagnosis and treatment of acute respiratory infections. However, it may be of interest to state that in our practice of otolaryngology during the past five months, we have performed thirteen tracheotomies for the relief of respiratory embarrassment due to acute infection accompanied by laryngeal obstruction. Nose and throat cultures for Klebs-Loeffler bacillus were positive in eight of these cases. Three cases showed a predominance of streptococcus hemolyticus and two were not cultured. Five of these cases were between the ages of eleven and thirteen months, four were between thirteen months and two years of age, two were between the ages of two and three years, one was five years of age and another six. Death occurred in three cases. The first was in extremis when seen and although an adequate airway was provided, he succumbed two hours following tracheotomy, death seemingly the result of an overwhelming toxicity. The second death was due to marked diphtheritic mucosal damage throughout the tracheo-bronchial tree. Crusting and subsequent obstruction of the small bronchi could not be relieved by bronchoscopy, although it was attempted. The remaining fatality showed no crusting on bronchoscopic inspection but instead, edema throughout the bronchi of such a degree as to obstruct the passage of air.

SUMMARY: The two important indications for tracheotomy are suprasternal notch indrawing and restlessness. Cyanosis should never be a factor. High tracheotomy with subsequent permanent damage to the larynx is condemned. Incision should be made with two strokes, as described, low in the neck. The elevation of the CO_2 threshold in the respiratory center may cause a dangerous apnea following tracheotomy, in cases of long standing obstruction. Frequent aspiration and meticulous cleanliness of the tracheal cannula must be carried out. The importance of maintaining proper temperature and humidity of the inspired air is of utmost importance. Crusting and subsequent obstruction may often be thus prevented. The number of tracheotomies done too late far outweigh those done unnecessarily. A patient should never be allowed to exhaust himself in the hope of escaping a tracheotomy which if done when there is ample time is not too formidable a procedure.

A Public Health Problem
Importation of Diseases in Postwar America

PART I

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Before and particularly since December 7, 1941—now over six years ago—the Military and United State Public Health Authorities have foreseen the danger of introduction of new and exotic diseases into the United States by way of intensified international traffic. Within the United States alone, the Bureau of Census[1] reports the migration of twenty-seven million persons, exclusive of military personnel. This mass movement of people together with the demobilization of ten million service men and women present enormous possibilities as to the dissemination of domestic as well as foreign diseases. The liquidation of wartime regulations and installation presents new health problems to the local health officials. It would be wrong to assume that this problem is a new one—rather it is as old as history itself—pestilence and disease having taken their share of the death toll in the numerous wars of history. Disease and epidemics have, upon occasion, determined the outcome of campaigns and the course of history instead of military activities. "Prior to the Twentieth Century, wars were characterized by great epidemics of typhus fever, smallpox, typhoid fever, dysentery, malaria, cholera, and bubonic plague. In Twentieth Century warfare, influenza, meningococcus meningitis and other respiratory and arthropod-borne diseases are the chief concern of the military and civilian health authorities."[2] This global war is much more hazardous to civilian populations than any in history. Shift of military and civilian populations, refugees and routed armies predispose to disease. "An entire new galaxy of tropical diseases faces the soldier as he struggles through tropical jungles and swamps, through native settlements whose populations are overflowing caldrons of infection."[2]

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A graduate of the Medical College of the State of S. C. (1946), Dr. Brockman is now interning in the Department of Pathology, Duke University Hospital.

Imported diseases in the Americas have had other important effects on historical events. "Since the landing of Columbus, more than four centuries ago, America has been threatened continuously by foreign infection and it has actually been invaded on numerous occasions."[3] Smallpox crossed the Atlantic with the early European explorers, conquistadors, and colonists. Against the Indians it helped Cortes and the landing of the Pilgrim Fathers. Dengue and malaria entered with the slave trade. Coolies, during the 19th century, imported as cheap labor into the great West to work on railroads, brought with them the vibrio cholerae. There were three epidemics of cholera between 1826 and 1875. Yellow fever entered on numerous occasions with trading vessels—the last visit being at New Orleans in 1905.

Tropical medicine before this war held only limited interest. Only a few civilian medical schools maintained departments of tropical medicine and most doctors outside the army and navy inclined to discount the importance of this. The general public was completely indifferent. But as the war progressed and rumors of tropical diseases spread, federal Health Services were deluged with letters.

Although the possibility of importation of tropical diseases has been perhaps over-emphasized, Brig.

Gen. Simmons, Chief of Preventive Medicine Service, M. C. AUS., believes that it is "a real danger and must be faced intelligently if we are to carry out existing plans to protect the people of the United States."[3] In spite of all the precautions taken by the Army, Navy, and the Public Health Service, not all cases will be identified, and not all returning ships and planes will be entirely without danger of transporting insects or rodents which may act as foci.

General methods of importation are carriers and latent cases; animal reservoirs introduced; insect vectors brought in by airplanes, ships or other means of transportation; new hosts in new areas; new vectors; and new strains of existing diseases, especially malaria and amebiasis.

Certain factors predisposing to the development or increase in imported parasitic diseases are as follows: long incubation period, pronounced chronicity, lack of permanent immunity, difficulties in diagnosis, no successful means of immunization for some, and for many no satisfactory treatment.

For the sake of convenience, these diseases may be separated into the following groups: first, those diseases already present in the United States; second, those diseases formerly present here but unrecognized or absent for a number of years; and third, those diseases never recognized here.[4]

I. Current Diseases
   1. Malaria
   2. Amebiasis
   3. Bacillary Dysentery
   4. Dengue Fever
   5. Leprosy
   6. Relapsing Fever
   7. Nematode infestations
   8. Cestode infestations
   9. Fungus infections: Histoplasmosis, Chromomycosis, Coccidioidomycosis, and Maduromycosis
   10. Epidemic Hepatitis
   11. Tuberculosis
   12. Venereal diseases
   13. Typhus fever
   14. Typhoid Fever

II. THOSE FORMERLY PRESENT
   1. Yellow fever
   2. Plague
   3. Cholera
   4. Filariasis

III. Those Never Recognized Here
   1. Onchocerciasis
   2. Loaisis
   3. Dracontiasis
   4. Trypanosomiasis, African and American Types
   5. Leishmaniases
   6. Schistosomiasis
   7. Yaws
   8. Pinta
   9. Paragonimiasis
   10. Clonorchiasis
   11. Tsutsugamushi fever

CURRENT DISEASES

The danger of ingress of disease is dependent upon many factors—among which world-wide prevalence is no small consideration. Probably the most frequent organism parasitizing man and producing disease is the several species of malarial organisms. MALARIA, according to the Health Division of the League of Nations Report in 1932 on the prevalence of malaria, was treated in 17,750,760 persons from 65 countries. However, not all cases were recognized. In India alone less than 1/10 of the cases were treated. The geographic distribution of malaria is worldwide, but is most prevalent between 45 degrees North and 45 degrees South Latitudes. In the United States, "the principal endemic area is in the Southeastern States, East of the line marking the mean annual precipitation of thirty inches (Boyd, 1939.) Toward the interior it is largely delimited by the division between the Atlantic Coast plain and the Piedmont Plateau, but it has extended, in the past, along the Atlantic Coast as far north as Boston. In the northern portion of this range, except in imported cases, tertian malaria has been almost the sole form encountered, a few cases of quartan malaria occurring. South of Chesapeake Bay, much aestivo-autumnal malaria has been observed. Malaria does not appear to be normally endemic in the Piedmont plateau, although extensive epidemics have been observed about the hydro-electric impoundings. . . ."[5] It is also found in several far western valleys—Pecos Valley of New Mexico, Central Valley of California, and Willamette Valley of Oregon. Malaria was once widespread over the entire continent of North America but the decreases in the carrier rate and the mosquito population have reduced it to the above distribution.

In 1944 it was estimated that 75% of the malaria cases among troops in the United States was of foreign origin.[6] Malaria is thus rated as the number one disease by the Army and Navy. The New England, Middle Atlantic, East North Central and West North Central States reported during January, February and March, 1940, 101 cases of malaria. During corresponding months in 1944 the same states reported 611 cases of malaria, an increase of 500%, which was undoubtedly due to relapses among returned service men.[7] Relapses are very characteristic even during and after intensive therapy. Relapses are most marked in quartan and least marked in malignant tertian. However, McCoy states that more than 90% of relapses among United States troops are of the vivax type.[8] Relapses are precipitated by exposure to cold, wet, intense heat; excessive fatigue, alcoholic, dietetic or venereal excesses; intercurrent illnesses, fractures, surgical operations, and childbirth. The relapse rate however, appears to be

declining. In a recent disclosure by the Army Medical Department "the hospital admission peak for malaria relapses in the United States was reached in February, 1945, with a total of approximately six thousand cases and has been declining since that time. During 1943 when men began to return from tropical theatres in increasing numbers, the total number of hospital admissions for malaria relapse reached 5275. By 1944 it had jumped to almost five times that number (28,150), and in the first six months of this year the total was 30,420."[9]

The carrier rate depends on the presence of viable gametocytes in the peripheral blood. One-third of falciparum cases and one-half of vivax cases develop gametocytes and, therefore, become carriers. But vivax malaria is much less likely to produce malignant infections than is the falciparum type. "The introduction of a few human carriers, particularly if they harbor new strains of malaria from shores for which the native population has no tolerance, will unquestionably produce an increase in the rate"[6] . . . "where malaria is waging a losing battle at the present moment by virtue of lack of carriers, the introduction of fresh sources of infection is bound to counterbalance the decrease in mosquitoes or improved housing that has been responsible for the previous decreases and produce an unwelcome increase in the number of cases."[6]

It is a well known fact that there is some racial difference in immunity to particular strains. The Southern negro is an excellent example, having acquired a relative immunity aaginst the native malarial strains. However, it has been shown that the negro is as equally susceptible as white persons to foreign strains. Ehrman et al have discovered a new strain of vivax malaria—the Chesson strain.[10] A patient named Chesson contracted malaria in New Guinea during 1944. Through transmissions to neurosyphilitic patients and with drug testing this particular strain reacted differently to certain drugs than did the St. Elizabeth's strain.

Young has shown that domestic mosquitoes, namely, Anopheles quadrimaculatus Say and A. maculipennis freeborni Aitken, are capable of transmitting vivax malaria of foreign origin.[11]

The increase in commerce and air travel following this war is expected to permit vectors and latent cases or carriers to enter the United States unknowingly to alert health officials despite strict precautions. Of the domestic mosquitoes, only approximately 5% are human feeders, but the African mosquito, Anopheles gambiae, is a vicious human feeder. About 85% of this type single out man for their blood meals. Anopheles gambiae is, therefore, an extremely dangerous vector. It was introduced into Brazil in 1930 and had been virtually wiped out. But it has recently reappeared. Therefore, we must reorient our quarantine strategy with regards to air transport. Each plane and ship should be thoroughly inspected and sprayed before leaving and upon arrival from tropical areas.

The Army routinely examines the blood of personnel previously having malaria and looks for splenomegaly. It would be very difficult to detect every latent case since very few would be discovered by blood examination. Withholding personnel for five to eight weeks and examining the blood weekly would result in only slight increases. This would be very costly for the government and would incur the resentment of the troops and their families. So the burden of discovery will depend on the local physicians and health officials.

The physician should keep in mind many diseases which confound the diagnosis – such cosmopolitan diseases as meningitis, encephalitis, typhoid fever, septic conditions, including malignant endocarditis, tuberculosis, influenza, pyelonephritis, and syphilis; and such tropical diseases as kala azar, Malta fever, liver abscess, filariasis, trypanosomiasis, leprosy, relapsing fever, yellow fever, bacillary dysentery and cholera. In considering syphilis it must be remembered that a false positive Wassermann reaction may be obtained. Recently, Robinson and McKinney[12] concluded there were no significant changes in the spinal fluid Kahn, cell count, except for a "trace" reading in the Pandy reaction, but 33% positive blood Kahn and 11% doubtful were found in 100 cases. Four weeks later 83.8% positives and 70% doubtfuls were negative. All were negative at eleven weeks.

Dr. Williams proposes an attack upon the mosquito to reduce the vectors in order to offset the increased carrier rate in endemic areas. This attack consists of spraying and killing adult mosquitoes, draining of stagnant waters, larvacides, fish planting in streams and ponds, use of DDT, and improved engineering methods.

Through cooperation with other nations malaria must and can be controlled but many authorities consider it extremely doubtful if malaria can ever be eradicated. We cannot remain free from malarial epidemics if they rage in other lands unless we so cooperate. International public health measures, therefore, should become the spearhead for peaceful international collaboration. International barriers should not be set up against all infectious diseases, however —just the ones most dangerous. Malaria is one of these.

DYSENTERY is likely to have an increased incidence in postwar America. Amebiasis was estimated to be present in 10% of individuals in 1926 by Craig.[13] But Faust since then has stated that it is much higher than 10%. Our soldiers have come into contact with Endameba histolytica in many tropical and temperate climates. The problem of control has been especially difficult in the field since ordinary quantities of chlorine do not kill all the cysts. In a study of diarrhea made at Army Air Forces Hdq. Calcutta, India, Lawrence and Bennett[14] concluded that 52.5% exhibited either amebic or bacillary dysentery.

Carriers among this group were 10% bacillary and 3% amebic. Introduction of new highly pathogenic strains of shigella or endameba represents the greatest hazard of these diseases. A man in service giving history of having had dysentery is given special stool examinations—smear for amebae which if positive is followed by proctoscopic examination and culture for bacilli. Both diseases, if present, are followed by treatment. The practicing physician must be aware of the possibility of these diseases among returning service men or their families particularly when the serviceman has returned from highly endemic areas.

DENGUE FEVER may occur in epidemic form in almost any part of the tropical or subtropical world. In the United States, since 1824, when the disease appeared in Charleston, S. C., epidemics have occurred from time to time which usually have been limited to the Gulf States, though sometimes the disease has occurred as far north as Philadelphia, New York and Boston. In 1922 and again in 1934 epidemics occurred in the southern states when in 1922 more than a million cases were reported. Dengue, which has a short period of communicability, probably will be again introduced into the United States only from nearby Latin America. Eradication of the aedes aegypti will remove the threat of future epidemics. Influenza must be differentiated from dengue. The saddleback temperature curve, the measly rash of peripheral distribution and the knee joint pains serve to distinguish dengue fever. Influenza is characterized chiefly by respiratory symptoms. Dengue-like fevers, such as phlebotomus fever, are not likely to be introduced since the phlebotomus fly occurs only in a few limited areas and its breeding habits and short range of flight make importation of new species a practical impossibility.

LEPROSY, probably caused by the acid-fast Bacillus leprae, is endemic in restricted areas in Louisiana, Florida, Texas, Wisconsin, Minnesota, South Carolina and scattered areas and represents a minor epidemiological problem, "but probably will never spread beyond present confines."[15] A few cases are expected to arise with very prolonged and intimate contact with oriental foci. But past experience gives rise to the belief that this will not give rise to others. Those cases arising will be treated by the proper authorities and isolated.

RELAPSING FEVER is dependent on species of lice and ticks for transmission to man. In the United States the louse-borne disease was imported on a number of occasions by patients arriving, especially from the British Isles. "During the years 1842-52, the disease was prevalent in Ireland, Scotland and England. In June, 1844, an immigrant ship from Liverpool brought eighteen cases of relapsing fever to Philadelphia. The disease was also observed in groups of immigrants in New York in 1848-50. The only widespread American epidemic occurred in 1869-71. . . . In Philadelphia there were over one thousand cases. . . . . Since this outbreak apparently only isolated cases of louse-borne disease have occurred in the Eastern United States. Palmer and Crawford, in 1933, could find a record of less than twenty cases since 1875."[5] The adequate delousing measure and the mass use of DDT have reduced the vector to almost nil and the possibility of increasing the incidence of louse-borne relapsing fever through returning servicemen is very unlikely. The tick-borne variety, however, is endemic in the west and southwest where different species of ornithodorus ticks are found. "In California, Miller, in 1875, reported upon an epidemic of relapsing fever among Chinese laborers at Oroville which prevailed during the months of August, September, and October. . . . The disease was not noted again in California until 1906, when 2 deaths were recorded."[5] For the next fifteen years scattered cases occurred. "From 1921 to 1938, 138 cases were demonstrated especially by Wynns and Beck and Wheeler. In Texas from 1930-1935, 258 cases were observed. . . ."[5] Recently Taft and Pike[16] reported a sporadic outbreak in Texas of 11 cases during August and September and April and May 1945. They noted a high incidence of neurologic involvement, particularly meningismus, absent abdominal reflexes and facial nerve palsy associated with abnormally high spinal fluid protein. They also demonstrated the spirochetes in the rash by Levaditi stain. Using penicillin in a total dose of 2,400,000 Oxford Units, their patients were afebrile in 72 hours and no relapses occurred. The tick is particularly resistant to insecticides, even the miraculous DDT. Burning or crushing are about the surest means of destruction. Crushing ticks between the fingers, a common practice, is dangerous since the spirochete may be allowed to enter the body at the same time. Vigilance should be kept against relapsing fever, especially latent cases. There remains a distinct possibility that this disease may spread eastward among the rural population particularly.

There is no increase to be expected in certain of the NEMATODE PARASITES such as Ascaris lumbricoides, Necator americanus, Strongyloides stercoralis, Trichiuris trichiura, Trichinella spiralis, and Enterobius vermicularis. Discharged veterans may bring home the European Hookworm — Ancylostoma duodenale — a difficult parasite to remove. Only a small increased incidence is to be expected.

Of the CESTODE INFESTATIONS — Taenia saginata, T. solium, Echinococcus granulosa, Hymenolepsis nana and diminuta, and Diphyllobothrium latum are already here. The latter one being endemic particularly in the north central states and in Florida. Military personnel have been stationed in highly endemic areas of hydatid disease, particularly Northern and Southern Africa, the Near East, Australia, and Iceland. Since dogs are a common animal host, all military dogs returning from endemic areas should be examined for hydatid disease before discharge.

FUNGUS INFECTIONS are particularly rampant in tropical and subtropical regions. Histoplasmosis was first seen by Darling in 1906 and for many years was a rare tropical disease, but many cases have been reported from California to New York. There have been reported nine cases of Chromomycosis thus far in the United States and it is believed to be more wide spread.[17] Coccidioidomycosis was initially discovered in a Brazilian soldier by Wernicke in 1892. By the end of 1935 more than four hundred cases had been reported, 80% of the cases in the United States from California. It is endemic in the San Joaquim Valley. Infection is usually acquired by inhalation of dust containing the fungus. Maduromycosis, a fungus disease affecting the foot, is not very frequently seen. All these fungus diseases may be expected to give rise to sporadic and scattered outbreaks in and out of the armed services but will remain localized.

EPIDEMIC HEPATITIS was seen very extensively among allied soldiers in North Africa and the Middle East. The etiologic agent has been suspected of being a virus. Barker et al[18] have reported a new component of this affection — chronic hepatitis. They believe that it is a relapse of the acute process which is precipitated by a nutritional deficiency or a reactivation of a dormant virus. Physicians should determine, in obscure cases of jaundice in discharged veterans, where the patient was stationed and rule out this possibility.

During the war, through cooperation of the military and industrial health agencies, nearly 200,000 cases of TUBERCULOSIS were brought to light among civilians and the armed forces. About two-thirds of these cases were in the early treatable stages. "Returning from areas abroad, where the disease is epidemic — many of them suffering from ill treatment in prison camps — thousands of veterans may be expected to break down with tuberculosis in the years to come, and to spread the disease to their families unless the public health program promptly reaches its full development.[1] The alert local medical man will intensify his efforts to ferret out tuberculosis in families of servicemen returning from prison camps and highly endemic areas. Upon discharge each man is given a chest X-ray examination and all suspicious cases are hospitalized.

VENERAL DISEASE may slip through the gauntlet of the separation center examination and may possibly be responsible for local increases in any of the venereal diseases but they are not expected to be great.

TYPHUS FEVER, the epidemic or endemic forms, is not expected to be imported during military withdrawal from indigenous areas. The liberal use of DDT on civilians are well as military personnel, an excellent delousing technic, and mass immunization have kept this disease to a minimum. In the Southeastern states, particularly Charleston, S. C., murine typhus is on the decrease through anti-rodent measures and the use of DDT. In 1938, 74 cases of typhus fever were reported in Charleston County. Since then there has been a gradual decrease when in 1945 only 27 cases were residents of the city and the remainder (14) of the total of 41 were residents of the rural areas. In 1942, 84% of the rat population was found to be infected.[19]

TYPHOID FEVER likewise represents little danger to the American populace. The use of vaccine has markedly reduced the incidence of this disease among service personnel, thus the military offers an extremely small source of infection.

(To be continued)

HISTORICAL SIDELIGHTS

Excursions Into Medical History

NUMBER FOUR

Andreas Vesalius (1514-1564) Father of Anatomy

By
R. M. POLLITZER, M.D., GREENVILLE, S. C.

Photograph from:

Arturo Castiglioni, M. D., *A HISTORY OF MEDICINE;* translated by Krumbhaar, M. D., Ph.D.; Alfred A. Knoph, Inc.; New York; 1941. Page 426.

If one wishes to learn human anatomy today, there is abundant opportunity, for there are many places where the subject is thoroughly taught. In the United States in 1946, there are listed 69 accredited medical schools. In these, many lectures are given, which completely cover all the tissues and organs, and further many weeks are spent in dissecting the entire body. But it was not always so.

Anatomy as taught at the school of Salerno, Italy (constituted as a medical school in 1231) was based mostly on the pig. In that same year dissections every five years were authorized by Frederick II. Ten years later a law was promulgated by him which regulated dissections, surgery and pharmacy. Soon after this, post-mortems were being performed at Bologna and Parma; and in 1376, Louis of Anjou, permitted the surgeons of Montpellier to annually dissect the body of a criminal. During the 15th and 16th centuries the great artists Verocchio, Signorelli, Donatello, Leonardo da Vinci, Michaelangelo, Raphael, Durer and others are known to have done some dissecting as a part of their studies in painting, wood carving and sculpturing.

These predecessors of the "Father of Anatomy" did not in any way systematize their work for this new science. Their work, while it was of great value to them, and to their art, yet lacked plan and scope.

It was during this period when art and science were making such magnificent contributions, that Andreas Vesalius was born in Brussels in 1514. His father was apothecary to Charles V. His mother was an Englishwoman, Isabella Crabbe. He was educated at Louvain, Belgium and Leyden, Holland. At Louvain, Vesalius obtained a good education, which included not only Greek and Latin, but also Hebrew and Arabic. Thus later on he was able to translate from Galen and from Rhazes. He studied medicine in Paris. There he listened to lectures on anatomy from Jacobus Sylvius and Johannes Guinterius, who sat in elegant chairs reading the texts of Galen, while an assistant indicated the part with a pointer. Only the barber demonstrator actually touched the cadaver. No attention was paid to the muscles, the joints or the bones.

For a short time thereafter Vesalius was a military surgeon in Flanders and he also lectured in Italy in 1537. Then he visited Venice. A few months later he received the degree of M.D. at Padua, and was appointed Professor of Anatomy there.

The University of Padua was founded in 1222 and revived in 1260. In the 14th century it was given full university rights, enlarged and expanded into a "university of law and of artists, which included medicine." In the 15th century hostels were established and it soon became one of the greatest seats of learning in the world. Men flocked to it from all of Europe.

As Padua lay outside the Papal States, it could and did escape the dictates of the Church and was

able to attract to its faculty, men of learning and especially liberal teachers of medicine, who were assured of their personal safety. And further, Padua being near and affiliated with Venice, shared with her the tradition and knowledge of Greek and Byzantine medicine of the preceding four centuries.

Almost at once, after becoming a professor, Vesalius, at the age of 22, introduced dissection and discarded the method of giving a reading from Galen. He changed the course in anatomy from four days to seven weeks. He dissected the human body, instead of the pig and other quadrupeds. Gradually, but surely, he overthrew many of the incorrect anatomical teachings of Galen, which had been undisputed for 1400 years. He denied the old belief that man had one rib less than woman, in accordance with the Bible story. Galen had said that man's lower jaw had three bones; Vesalius found but one. His dissections and lectures attracted students from all over Europe, and at times the amphitheater held five hundred. He made anatomy so interesting that his auditors tried to catch his every word and they watched him intently as he demonstrated. Of course Vesalius was not the first to dissect, but his work was different. He dissected the entire body on a grand scale; classifying and systematizing it into the science of anatomy.

For five years he labored untiringly, and finally he was ready to give to the world his masterpiece, *DE FABRICA HUMANI CORPORIS*. This was published, under his constant supervision, at Basel, Switzerland in 1543.* As Newman says, "It began in a true sense the Renaissance of Medicine." The "De Fabrica" of Vesalius' is a large volume of almost seven hundred pages, with many wood-cuts, which were made by the famous artist, J. S. van Calcar, who was also his friend and fellow-countryman. This man was a pupil of Titian, and some claim that a few of the illustrations are the work of that great artist himself. Guthrie writes, "It is no dead anatomy that is here represented. The subjects are full of life and expression, for the author sought to depict the body in action, and to teach physiology as well as anatomy." The frontispiece, which is a magnificent engraving, portrays Vesalius dissecting, while a large gathering watches him with great interest. Sir William Osler considered it the greatest medical book ever written from which modern medicine starts.

There was much opposition when the book appeared. Some of the most eminent professors would not accept his discoveries. Men who were in the top-rank, such as Sylvius, his former teacher in Paris; Eustachius of Rome, and many others violently dissented. One objector even stated that if Vesalius were correct, then man's body, in the 16th century, had greatly changed from what it had been in the second century. Indeed, even Vesalius was loath at first to disagree with Galen, who had said that there were pores in the interventricular septum of the heart, even though they were not visible. But soon he denied this, and boldly asserted in his second edition that there were no such openings.

The "Fabrica" is not only a monumental work from the scientific standpoint, but Vesalius was most fortunate in his timing and in his associates, for Calcar and Titian contributed with their great skill to illustrating anatomical parts, instead of only working for the Church, wealthy patrons or the nobility. This is remarkable, for as Dr. Victor Robinson says, "They must have found less pleasure in decaying viscera (there were no preservative fluids then) than in the lively limbs of a signorina." Indeed, "Vesalius often complained that the artists were more interested in painting Venus than in drawing his dissected carcasses." Further almost a hundred years had passed since the first printing press had been set up, so already it was possible to produce a volume that was creditable. And 12 years before Vesalius gave his work to the world, Albrecht Durer had published in Nuremburg, his great treatise on "human proportions." In this, as Garrison says, "Shades and shadows were represented in wood-engraving for the first time by means of cross-hatching."

A year prior to the appearance of Vesalius' great and epoch making volume, it was preceded by an "Epitome" containing several anatomical plates. Previous to this he had translated the ninth book of Rhazes' "Almansor," which had become a very important textbook.

After the "Fabrica" appeared and there was so much envy and opposition, to escape all unpleasantness and even danger, he forsook Italy and journeyed to Spain. While in Spain, as physician to Emperor Charles V, Vesalius attended court much of the time, married, made money, practiced medicine and probably surgery; but did no dissecting. His life was an easy one, but no longer of value to science.

While he was leading the pleasant life of a courtier, his former pupil, Fallopius had written a volume, *OBSERVATIONES ANATOMICAE* on human anatomy. This work of considerable value, fell into the hands of Vesalius in 1561. It must have surprised him, for it contained descriptions of structures unknown even to him. Probably his jealousy was aroused, next anger may have possessed him, and he resolved to resume his anatomical investigations.

But soon after this, when a nobleman died from some "obscure illness," Vesalius performed the autopsy. On opening the chest of the supposed dead man, unmistakably and most unfortunately, it was at once evident, not alone to him, but to those looking on,

* Oddly enough in that same year, Copernicus had published his great work, entitled *DE REVOLUTIONIBUS ORBIUM COELESTIUM*, which was the beginning of modern astronomy.

that the heart was still beating. At any time this would have been a serious matter; but at this period, and in this land where the Inquisition held full swav, it was disastrous. Further Vesalius was already in ill favor with the Church, because of his radical and famous book.

There are other stories as to why he left Spain. At any rate, perhaps as penance on order of the Pope, or merely by his own volition, he went on a pilgrimage to the Holy Land.

After remaining there for a short time, Vesalius left Palestine and visited nearby Cyprus. While there the report reached him of the untimely death of the brave and brilliant 39 year old Fallopius; who had succeded to his chair. Soon thereafter the Venetian Senate invited him to again become Professor of Anatomy at Padua.

On the homeward voyage, while in the Ionian Sea, a storm arose and the ship was wrecked. Vesalius reached the island of Zante, near the Morea, Greece. Here he shortly died, most probably of typhoid fever, at the early age of fifty years.

Whether he would have given more of his genius to medical science must remain an unanswered question.

Although the anatomists who followed Vesalius were men of considerable ability, particularly Realdus Columbus; the illustrious martyr, Michael Servetus, and Gabriel Fallopius, yet these were lesser lights and no one even down to our time, has been able to accomplish for anatomy anything to compare with his work. He is undoubtedly the "Father of Anatomy."

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MAY, 1947

CONGRATULATIONS, FLORIDA

The Florida Medical Association has recently announced the selection of a Director of Public Relations and the establishment of a Bureau of Public Relations. We hasten to congratulate our neighbor on this forward step and to wish them marked success in their undertaking. And we proffer to the new Director, Mr. Ernest R. Gibson, any help which we may be able to give from our endeavors in this field.

It is of interest to note that the Secretary of the Florida Association is a South Carolina product, having been born in Spartanburg. Dr. McIver is now living in Jacksonville and is a licentiate of the Board of Anesthesiology. From one South Carolinian to another, we say — Keep up the good work, Bob.

NEW A. M. A. PRESIDENT

Dr. Olin West, President-Elect of the American Medical Association has resigned because of ill health and will be succeeded by the Vice-President, Dr. Edward L. Bortz. The new President will be inaugurated at the annual session in Atlantic City in June.

Dr. Bortz was born in Greensburg, Pa., February 10, 1896. He lives now in Philadelphia. He has been a Fellow of the American College of Physicians since 1929, and he received the certificate of the American Board of Internal Medicine in 1937. In 1942 he was made a member of the Council on Scientific Assembly of A. M. A. and became its chairman in 1945. He became a Delegate to A. M. A. the same year. He is chairman also of the Committee on National Emergency Medical Service of the Association.

During World War II, Dr. Bortz served in the Naval Medical Corps, attaining the rank of captain prior to being released to inactive duty in January, 1944.

WHAT SHOULD I DO?

Why pediatricians turn grey prematurely will be understood when one reads this stenographic record of the report given by an over-zealous and super-observant mother, as told to us by one of our pediatric colleagues.

"This is an account of what has happened. On Thursday she started leaving half of her milk and turning her head from side to side. I didn't know whether she was practicing or not. On Friday, she was drowsy, and coughed six times and sneezed four times instead of the usual two coughs and one sneeze. That day she left one ounce of milk. Her stool that day was reddish brown. Today, she has had three stools, one was well formed, the others contained curds and mucus and she expelled them with great explosion. Now, I've tried burping her over my shoulder but the gas will not come that *way*. What should I do-"

TWO PICTURES

What struck me as unusual was that a boy was turning one end of a jump-rope. He was one of the larger boys and should have been over with the rest of the gang catching football. Jumping rope was a girl's pastime.

But let me get back to the beginning of the story. Each morning it is my custom, as it is of so many parents, to take my youngsters to school. And each morning, they hop out of the car and run, one to the boy's side and one to the girl's, to join in that last few minutes of freedom before the first bell rings. And each morning, I have a hurried good bye and drive on to the office.

But this morning I paused. Why should a boy be turning the rope? The answer was obvious.

In the center of the rope stood a little girl — a little girl of about seven with curly hair, ruddy cheeks, a cotton dress, and a faded green sweater. Just a typical American little girl I thought, and then looked closer. Fastened to each shoe and extending up to the knee was a steel brace.

As the rope swung over her head and came down to the ground, the little girl would jump. The right foot came far enough off the ground to let the rope swing by, but the left foot was raised only an inch or two—and the rope stopped against the heel of her shoe.

Again and again she tried—the boy's expression became intense and the circle of watching girls grew larger—but again and again the rope struck her heel.

Did she ever jump the rope? I do not know, I had to leave. But all day long the two pictures flashed across my mind—the little girl trying to jump and the big boy swinging the rope.

THE TEN POINT PROGRAM

M. L. MEADORS, EXECUTIVE DIRECTOR AND COUNSEL

PREPAYMENT MEDICAL CARE PLANS

The proposed enabling act for a prepayment Medical Care Plan in South Carolina, having been introduced in the House of Representatives on March 18th, passed that body without opposition. The following week it received a first reading in the Senate and was referred to the Senate Committee on Medical Affairs, where, at this writing, it remains.

It is understood that opposition to the measure on the part of some of the insurance companies has been expressed, and that the Senate Committee has been reequested to hold a public hearing. So far however, no hearing has been scheduled.

Interesting data on the development of Prepayment Medical Care Plans is provided from time to time in the publications released by the Council on Medical Service of the American Medical Association. In view of the legislative progress which has been made on the pending bill before the General Assembly of South Carolina, it will be of interest to note the extent to which the plans have been developed in organization and popularity in other states. The following information and comments were released a few weeks ago by the Secretary of the Council, Mr. Thomas A. Hendricks in Chicago:

A steady pace marks the progress in the development of voluntary prepayment medical care plans.

More than five million persons covered.

Almost 100 per cent enrolment growth in 1946.

Eighty-four plans organized to date.

All forty-eight states either have plans or are working on prepayment programs.

The voluntary prepayment medical care program is well under way. The stage is set for a growth in 1947.

The Council and Prepayment

The House of Delegates and the Board of Trustees have looked to the Council on Medical Service for leadership in the development of a specific national health program. Prepayment is an important part of such a program and emphasis has been placed on locally administered plans sponsored by medical societies.

The Council is organized to function in this field and will continue to do so. During the past year the Council has sponsored meetings of prepayment plan executives; collected, correlated, and published data on plans; prepared material on plan activities; answered numerous requests as to the prepayment program; assisted state and county medical societies in planning their programs. In addition, it has initiated a study of cooperative medical plans for the purpose of providing accurate information as to their activities.

One of the primary "musts" in realizing accomplishment is cooperation — working together. The Council on Medical Service in carrying on its part in the development of plans has kept this uppermost in its activities, especially as these plans relate to the nationwide, over-all movement. Its staff members have one goal — one objective. They speak the same language and abide by the same principles. The Council is working for medicine — the physicians — in an effort to extend to every citizen the best in American Medicine.

Most of the actual work is a job for the home front, the practicing physician, the county medical society, the state medical society, and the plans operating prepayment programs. The Council can best function by providing ideas, gathering information, suggesting ways and means, reporting on activities, and assisting states in coordinating their medical care programs. To function effectively in prepayment, the Council needs the cooperation of medical societies and their prepayment plans. *Teamwork does it.*

A year ago the News Letter reported fifty-nine voluntary prepayment medical care plans in operation or preparing to operate.

At the present time we have a total of eighty-four plans on the list. There are instances even now in which the number of plans will be quoted as fifty-nine. This is because of the coordinating programs in Oregan and Washington, in which the twenty-five local bureaus are often counted as two statewide plans, thus reducing the quotable total to fifty-nine.

A number of plans formed prior to 1946 were not added to the Council's list until last year; therefore, the actual increase in the number of plans organized during the year was not twenty-five (84 less 59). However, sixteen plans were organized in 1946, with one plan (Vermont) joining an already existing plan (New Hampshire) to form a two-state plan.

On December 31, 1945, twenty-five states had set up plans, although not all were in operation. At present there are plans organized in thirty-three states and the District of Columbia. These States are: Alabama, California, Colorado, Delaware, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Massachusetts, Michigan, Missouri, Montana, Nebraska, New Mexico, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma,

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* *Laryngoscope, Feb. 1935, Vol. XLV, No. 2, 149-154*
Laryngoscope, Jan. 1937, Vol. XLVII, No. 1, 58-60

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States which have reached a fairly definite planning stage are: Arkansas, Arizona, Connecticut, Minnesota, Nevada, Rhode Island, South Dakota, Tennessee. In addition, Georgia, Kentucky, Maine, Maryland, Mississippi, South Carolina and Wyoming are reported working on programs for prepayment.

The figure for 1946 has been estimated because complete returns have not been filed by all plans as yet. One encouraging factor is that several plans reporting to date indicate enrolment increases of over 100 percent for the year. The greatest percentage increase reported to date (1,111 per cent) was by Surgical Care (Milwaukee, Wis.).

Other plans reporting over 100 per cent increases are:

Oklahoma Physicians Service	697%
Iowa Medical Service	434%
Medical Service Assn. of Pa.	310%
Nebraska Medical Service	286%
Medical Mutual of Cleveland	153%
Surgical Care, Inc. (Missouri)	114%
California Physicians Service	108%

From sources deemed reliable, other than the plans themselves, the following increases are reported:

United Medical Service, New York	154%
Hospital Service of Calif., Oakland	107%
Massachusetts Medical Service	107%

Another encouraging factor is the excellent progress made by some of the plans organized during the year 1946. Indiana Medical Mutual enrolled 82,531 subscribers from September 1 to December 31. Ohio Medical Indemnity enrolled 71,895 subscribers from the middle of January to December 31.

Five Plans—Over 250,000 Participants	
Michigan Medical Service	850,000
Massachusetts Medical Service	461,000
California Physicians Service	419,672
United Medical Service, New York	405,744
Washington State Medical Bureaus	360,000
Seven Plans—100,000 to 200,000.	
Hospital Saving Association of North Carolina (Chapel Hill)	178,889
Colorado Medical Service	174,132
Hospital Care Association and Medical Service Association of Durham, N. C.	138,704
Hospital Service Association, Oakland, California	116,653
Surgical Care, Inc., Kansas City, Mo.	114,186
Western New York Medical Plan, Buffalo	100,281
Oregon Physicians Service	100,000
Ten Plans—50,000 to 100,000.	

In addition to the twelve plans listed above there are ten plans reporting to date that have reached the 50,000 mark in enrolment. Four of the ten have over 75,000 participants.

The Council on Medical Service has conducted a preliminary survey of the community and rural enrolment programs of voluntary prepayment medical care plans. The early results of this pilot letter show that these programs are getting under way. Nine plans have reported an estimate of 202,633 persons covered in rural communities. The rural communities were, for the most part, towns of less than 2,500 population and farm residents. Eight plans reported an enrolment of 102,633 persons.

Four additional plans reported favorable progress in rural enrolment but were unable to give total figures on persons covered at this time.

Seven plans reported rural enrolment programs being formulated or just getting started. Fourteen plans reported urban enrolment only. To date thirty-four replies have been received from the fifty-eight plans to which inquiries were directed. These replies indicate the general interest in community and rural enrolment. A typical comment is one from Mr. Lester H. Perry, director of Medical Service Association of Pennsylvania. "We are very much interested in the results of your survey and are looking forward with anticipation to receiving the information on rural and community enrolment."

"OUR FRIENDS IN THE SOUTH"

Dr. Stanley Weld, able Editor of the Journal of the State Medical Society of Connecticut, writing in the March issue, over the *nom de plume* "Peripateticus," describes in interesting fashion his brief visit in the Pee Dee Section of South Carolina, while on a recent trip to Florida at the time best calculated to escape the wintry rigours of his home State.

His remarks are not without compliment to certain officials of this Association; and there is evidence too, that prominent South Carolina names and native South Carolinians have received recognition also in Connecticut. He writes:

"Stopping off at Florence, South Carolina, to pay my respects to one of medicine's leaders, Julian P. Price, pediatrician, secretary of the South Carolina Medical Association and editor of its Journal, I was privileged to be a guest at the annual meeting of the Marlborough County Medical Society held at Bennetsville. My host on that occasion has been largely responsible for the South Carolina Association's leadership in organized medicine. With its Ten Point Program it has stimulated its membership to an active interest in prepaid plans for hospital and medical care, in better health legislation for that State, and in a higher type of medical practice among its members. Dr. Price's renown as a presiding officer has become nationwide since the 1946 Conference of Secretaries

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"The ideal in therapy...is to convert the diabetic into a normal person."[1] While certain restrictions must always be imposed, many patients can be controlled through diet alone so as to dislocate their normal habits as little as possible. In those cases where insulin therapy is also required, control may often be attained with but *one daily injection* of 'Wellcome' Globin Insulin with Zinc. Its intermediate action is adaptable to the needs of most mild and many moderately severe cases and adequate control can usually be achieved in three clear-cut steps:

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1. Bauman, L.: Bull. New Eng. M. Center 5:17 (Feb.) 1943.

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and Editors in Chicago, in fact, he has become almost one of those indispensables in arranging and carrying through many of the conferences which meet at the home of the American Medical Association many times throughout the year.

"This particular county meeting was a gala occasion and, according to custom, drew physicians from as far west as Greenville, South Carolina, and from such cities as Charlotte in the neighboring State of North Carolina. As a guest from the cold and far distant North I was introduced and had the opportunity to pay tribute to South Carolina as the birthplace of Cole Blease Gibson, the illustrious president of the Connecticut State Medical Society. Following a sumptious dinner the gathering was addressed in true Southern Oratorical style by the president of the South Carolina Medical Association, Dr. James McLeod, who, during the last gubernatorial campaign, had been an unsuccessful candidate for that office. Dr. McLeod is one of South Carolina's leading surgeons and the head of the McLeod Infirmary, founded by his father at Florence. In the scientific program which followed the members and guests to the number of approximately one hundred were presented with a case report of acute myeloid leukemia associated with erythroblastosis. This was ably discussed by an internist and by a pathologist, both from Charlotte, North Carolina. The program ended with movies showing the latest developments in surgery of the heart."

DETROIT MEDICS PROPOSE LA FOLLETTE FOR A. M. A. PUBLIC RELATIONS POST

Titling his Editor's Page in the December 16 issue of The Detroit Medical News, "No Pipsqueaks Need Apply," Dr. Frank A. Weiser, editor, suggests that a "forthright critical lay person of stature" act as the medical profession's counsellor in public relations.

Doctor Weiser's editorial follows in full:

"Social change is on the move and will involve the profession of medicine because the health and welfare of the nation is one of the basic issues. To date the profession has done little more than dodge the issue with a laissez faire philosophy.

"Not one physician of our acquaintance would want labor to lose the social advantages it has gained for itself. All of us want and feel sure the Republican administration will maintain those gains. We would like to see the unions made into responsible bodies for the good of organized labor.

"We feel sure that some kind of medical care clause will be enacted in the labor management contracts of the future. It is our duty as citizens to give without bias, as far as is humanly possible, of our advice and knowledge in the planning of the health and welfare of our people under these contracts, but we can't do that until we get off our high horse of sensitivity to criticism. We have missed our big opportunity up to the present because we do not understand the public viewpoint, and the public has become suspicious of our reasons for fighting off political medicine because the public does not understand our viewpoint.

"We have forced each other unwittingly into noisy debate with all its emotionalism, accusations and disorderly thinking. We could if we had the proper advice, and God knows we need it, make a further contribution to the happiness of American mankind.

"We have tried to influence public opinion by ineffective, disconnected, unorganized propaganda efforts. The A. M. A., National Physicians Committee and the State and County Medical Societies have all taken a stab at it. Our own local and state effort has consisted chiefly of a type of radio program that is denounced as worthless by experts in the radio programming field—in pamphleteering an already overpamphletered public and other pusillanimous gestures.

"We believe our entire public relations programs should be scrapped now-not next month or next year, and in its place we should secure a forthright critical lay person of stature to act as counsellor to the medical profession. The phramacists, dentists and physicians of the Great Lakes area, through their respective state societies could combine into one region or district to provide the necessary funds. We have in mind someone of calibre, experience and stature of Senator La Follette, who has been in public service for many years and who has demonstrated his liberalism, his integrity and his courage.

"No pipsqueak will suffice."

HEALTH, EDUCATION AND SOCIAL SECURITY

Considerable interest has centered in the hearings recently conducted before the U. S. Senate Committee on Expenditures in Executive Departments with reference to Senate Bills 140 and 712. Both Bills, S. 140 introduced by Senators Fulbright and Taft, and S. 712 introduced by Senator Aiken, would group together in a single agency the activities of the national development with respect to Health, Education and Social Security.

The attitude of the medical profession generally on the subject is summarized in a Bulletin released a few weeks ago from the headquarters of the American Medical Association, as follows:

An examination of the minutes of the House of Delegates of the American Medical Association shows that considerable thought was given over a period of years to the formulation of a separate federal health agency. References and records of action taken appear repeatedly in the minutes. As early as 1884 at the annual session it was urged that a separate Department of Health be established under a Cabinet officer. In 1891, a committee of twenty-three mem-

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bers was appointed to petition Congress on this matter. Further references appear in the minutes of the annual sessions each year from 1891 up to and including 1902. The subject apparently was not discussed during the three succeeding years, but reappears annually from 1906 to 1913, and from 1917 to 1930. After five years, a resolution was introduced into the Special Session of the House held in Chicago in 1935 urging the President of the United States to establish a separate Department of Health. At the session of the House of Delegates in San Francisco in 1938, the House adopted the following recommendation of the Reference Committee on Legislation and Public Relation: ". . . your committee recommends that this House of Delegates reiterate its demand for a federal executive department to be designated as the Department of Health, with a Doctor of Medicine at its head who shall have general supervision and direction of the affairs of the federal government pertaining to the health of the people." From the foregoing it will be seen that the American Medical Association has repeatedly gone on record as being desirous of seeing legislation passed leading to the formulation of a separate National Health Department. Current opinion in the Association at the present time is to the effect that this department should be an agency separated from other activities of the government.

Congress in 1879 passed legislation authorizing a National Board of Health. The functions and relations of this unit with other departments were very poorly defined in the law and no money was appropriated for its activities. The legislation remained on the statute books without any action until 1893 at which time it was repealed.

It has been estimated that educators are concerned in some manner with approximately twenty-eight million members of the population. Social Security has contact with about fifty-one million people including recipients as well as taxpayers. Medicine, on the other hand, has a much broader contact and in fact. enters into the lives of all of our people.

An examination of proposals to group all health activities of the federal government under one head may be accomplished in a number of ways. The most commonly considered conceptions are:

1. A separate Department of Health whose head has Cabinet status.

2. Combining all health activities of the federal government in a separate agency not of Cabinet status.

3. Combining health activities with other activities of the federal government in one department.

While the American Medical Association is still of the opinion that the health of the nation warrants a separate Department of Health with a Cabinet officer at its head, it realizes that it may be impractical to develop this at the present time.

Furthermore it is its opinion that if a separate department of health is not feasible it is possible to group health activities in a separate bureau. The Association is opposed to having health activities grouped with other activities in a department with Cabinet status.

– – – – – – – – – – – – – –

More recently several witnesses of more or less importance in the national picture with regard to Social Security, Public Welfare, Education and related activities, have testified before the Committee.

Mr. Watson B. Miller, Federal Security Administrator, in urging Congreess to establish an overall department of health, education and welfare without professional limitations for the under secretaries, defends the proposal by setting forth two questions: "*Whether* there should be an executive department embracing federal programs for health, education and welfare; and if so, *how* such a department should be set up."

In answer to these questions he stated that such establishment meets the approval of national interest that these three compartments were components of public welfare. The laws to be administered were enacted by the Congress for no lesser purpose than "to promote the general welfare." The fundamental pattern of government is the obligation of all branches to serve the needs of the public and to have a voice in the "highest executive councils of the Nation."

Miller cited that the Congress and the President, recognizing the need for coordination in the fields of health, education, and security, established the Federal Security Administration. That, because of the inter-relation of these fields, some of these functions could not properly come under exclusive departments, as the Food and Drug Administration, the Office of Vocational Rehabilitaton, The Bureau of Employees' Compensation, and the Employees' Compensation Appeals Board.

The second question is answered by the extensive public discussion on a similar bill introduced in the 79th Congress which clearly indicated that there was general agreement that the bill should be an organizational bill without vesting any new authority not now present in the Fedeeral Security Agency. The relationship existing between the states and the federal government would not be altered. The terms should be broad enough to carry out effectively the mandate of Congress, the President, and the people.

"Professional limitations," though foreign in our nation's history, raised another proposition as to whether under secretaries chosen from professional ranks could avoid competitive pressures and interest in their divisional concern. The balanced program that the people have a right to expect would not best be served by such a division.

"Congress" he said, "should steer clear of any statutory prescriptions which would hamper and limit

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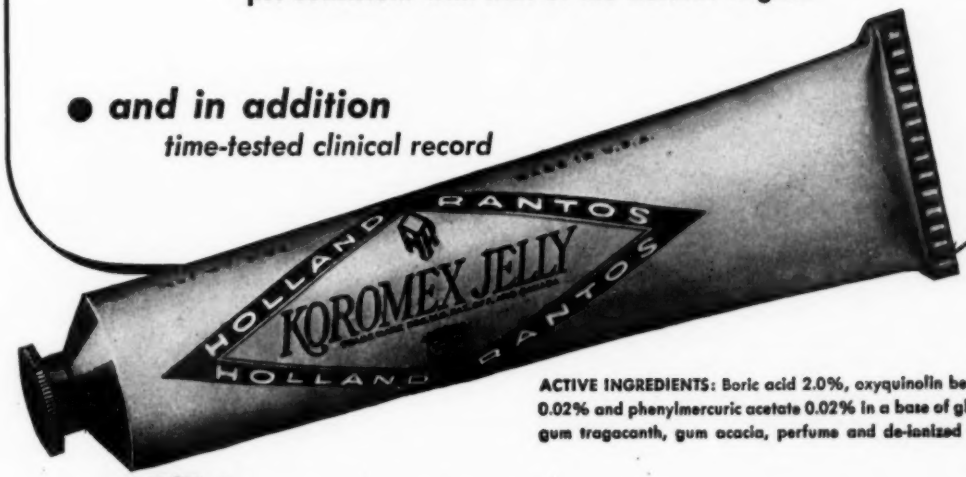

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the President in selecting the best possible persons for the posts requiring policy decisions."

Miss Elizabeth Wickenden, Washington Representative for the American Public Welfare Association urged the simplest possible bill to promote flexibility in Federal-State relations.

She said a department of cabinet level can be justified by the two Reorganization Acts that brought together federal responsibility for social security and related programs. Over-evaluation as to what such a department can achieve; fear that it implies federal assumption of responsibility; and federal control of welfare, education and medicine have led to confusion. She declared that the Aiken bill (S. 712) "makes it clear that the change in organizational status is not being used as a smoke screen for vast expansion of federal authority in those fields where primary operating responsibility rests traditionally with the state and local governments." The Aiken bill eliminates all controversial questions of policy and with minimum language raises the Federal Security Agency to cabinet status.

The secretary and under secretaries, she believes, should be persons of broad interests capable of formulating policies of statesmanlike character and of coordinating the service touching individual human lives. Crippling restrictive provisions, such as professional leadership belong in the bureau level.

Dr. George F. Zook, president of the American Council on Education, recommended the enactment of S. 140 with minor provisions—that the name of the department be changed to department of Education, Health and Security, with the understanding that its creation would not extend control of the federal government over State and local school systems. The expanding relationship of the federal government through legislation in education and the need for greater coordination of functional activities carried on by the federal government justifies this change in name.

Dr. Ernest Stebbins, testifying as Co-chairman of the Committee on a Federal Department of Health, Education and Security, cited that a federal department of cabinet status should be established by legislation converting the Federal Security Agency into a department.

The Committee recommended that wide flexibility and discretion be left to the secretary in the organization of the department, but be modified to provide for the creation of divisions of health, education and security in order to provide orderly grouping of the major functional fields for efficient administration. The legislation should also include such provisions as not to confer powers on the department to supervise and control existing agencies operating in these fields.

Dr. Joseph H. Louchheim, appearing on behalf of the Committee for the Nation's Health, told the group that though there was accord with the need for top-ranking status of an agency administering programs that directly affect health, education and security, the enactment of S. 140 would prevent the secretary from working out effective organization by creating separate divisions for health, education and security. Such a provision would tend to emphasize separatism in function. He objected to professional requirements in the respective fields. Such a requirement would run counter to American principles of government and would confuse policy making with administration by career officers of government. Officers should represent the interests of the general public rather than professional groups. It would yield to undesirable "pressure politics." In the health field "this represents the aim of the American Medical Association to obtain control over the administration of the health functions of the government."

He concluded that the Aiken bill (S. 712), reconstituting the Federal Security Agency as a department of cabinet stature would eliminate these objections and leave the internal administration to the secretary as is the customary procedure of the executive departments.

PUBLIC HEALTH NEWS

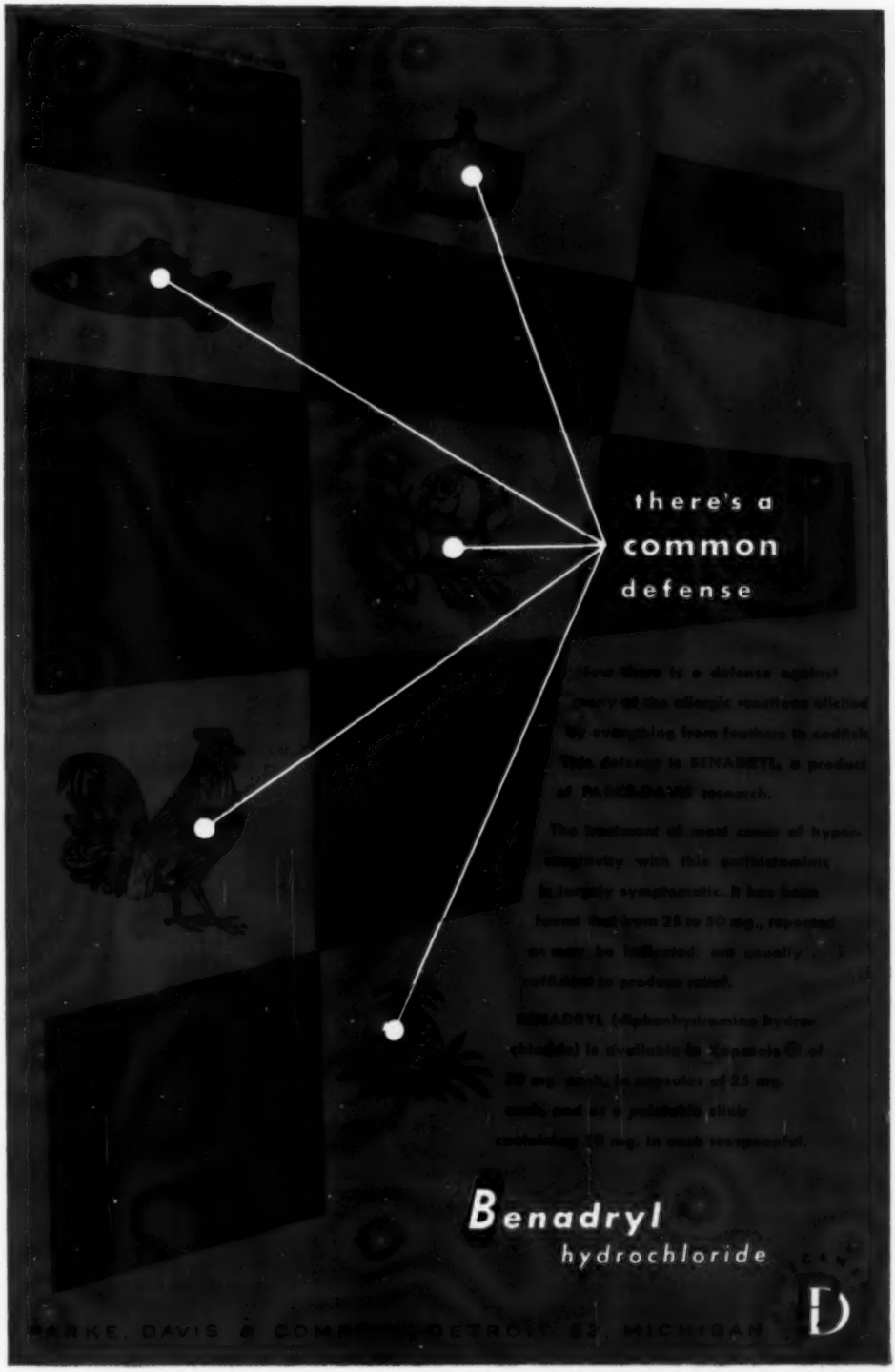
MINUTES OF THE EXECUTIVE COMMITTEE OF THE SOUTH CAROLINA STATE BOARD OF HEALTH — MARCH 19, 1947

At the regular meeting of the Executive Committee held in the offices of the State Board of Health on Wednesday, March 19, 1947, the following members were present: Dr. W. R. Wallace, Chairman, presiding; Dr. W. R. Mead, Dr. Lesesne Smith, Dr. Geo. W. Dick, Dr. W. L. Pressly, Dr. J. I. Waring, Dr. L. D. Boone, Dr. Vivian F. Platt, and Dr. Ben F. Wyman, State Health Officer. Dr. Durham was reported as ill.

The minutes of the previous meeting, having been supplied each member of the Committee by mail, were approved as submitted.

The report of the State Health Officer was read and received as information.

Dr. Vivian Platt reported that as Chairman of the special committee on barbiturates, he had attended a joint meeting of the Executive Committee of the Pharmaceutical Association and the Board of Examiners of said Association, to discuss in detail the recommendations as to carrying into effect certain rules and regulations for the dispensing of barbiturates and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barbiturate compounds. Dr. Platt reported that after due consideration, the Pharmaceutical Association, through the two Boards mentioned, had approved the recommendations of the Executive Committee as related to the dispensing of barbiturates.

It was moved by Dr. Smith, seconded by Dr. Boone, that recommendations for medical and hospital care for obstetrical patients with pulmonary tuberculosis, as presented to the Children's Bureau of the Social Security Board and to members of the Executive Committee, be adopted. Passed.

It was moved by Dr. Pressly, seconded by Dr. Boone, that "recognized pediatricians be incorporated into the Crippled Children's Program to examine all crippled children admitted to the hospitals of the State after they had attended clinics and been assigned to hospital care by the Orthopedic Surgeon, and further, that such Pediatricians are to assist the Orthopedic Surgeons in the post-operative care of such child. Provided further, that the details of this joint participation by the Pediatrician and the Orthopedic Surgeon in certain phases of care will be under proper rules and regulations of the State Board of Health. Provided further, that the physical examination made by the Pediatrician, shall become part of the hospital's written record of the case. Either in the resolution or the rules and regulations governing such cases, definite instructions must be made that such cases cannot be operated upon if there is first need for other surgery or other medical care." Passed.

It was moved by Dr. Boone, seconded by Dr. Waring, that "the State Health Officer be instructed to institute and carry into effect, a Rheumatic Fever Program, including Rheumatic Heart Disease, in the Columbia area, and it shall be the duty of the Health Department to see that proper reports are rendered to referring physicians on cases accepted by this service." Passed.

It was moved by Dr. Boone, seconded by Dr. Dick, that "the Pediatricians fee for care of acute poliomyelitis cases be raised from $25.00 to $50.00 as recommended by the joint meeting of Orthopedic Surgeons and Advisory Council." Passed.

In consideration of the request of a competent and recognized Orthopedic Surgeon that he enter into professional duties with the State Board of Health in connection with their Crippled Childrens Program, and upon considering the numerous activities in the various county health departments and the fact that any additional clinics would increase their burden and after considering an analysis of the existing clinics which apparently completely cover the State and render a reasonable service to all crippled children, it was moved by Dr. Mead, seconded by Dr. Smith, that "the recommendation of the Orthopedic Surgeons and Advisory Committee, relative to no further redistricting of the State and assignment of additional Orthopedic Surgeons to the program, be approved." Passed.

It was moved by Dr. Platt, seconded by Dr. Smith, that "Whereas personnel under the control and direction of the State Board of Health are allowed two days annual leave per month, exclusive of holidays and Sundays, that any leave granted for the purpose of attending encampments or other gathering together of the military services, be considered as part of their annual leave, provided however, that this resolution is in no way intended to be construed as interfering with the established principle under the laws of the State for the payment of salary when any such personnel are called into the armed services during a period of war or national emergency. Provided further, that if the state law provides for military leave for encampments of national guards and reserve officers during the time of peace, and such laws makes mandatory the granting of military leave separate and distinct from annual leave, that this resolution shall in no way be construed as interefering with said legal requirements." Passed.

The State Health Officer was instructed to prepare suitable resolution relative to the death of Mrs. George.

The next meeting of the Executive Committee will be held at the Ocean Forest Hotel, Myrtle Beach, on May 6th, 11:00 A. M., unless previously called by the State Health Officer.

NEWS ITEMS

Dr. J. H. Kirby, Jr., practicing physician of Loris has been awarded a three-year fellowship in general surgery at the Alton Oschner Medical Foundation in New Orleans.

Dr. J. D. Gilland, formerly of Charlotte, has assumed his duties as chief surgeon at the Kelley Memorial Hospital in Kingstree.

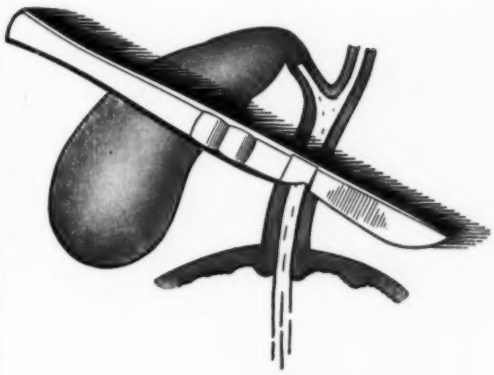
Dr. Lucius M. Cline, Jr. has opened an office in Greenville for the practice of general medicine.

Dr. C. L. Guyton has resigned as Director of Cancer and Venereal Disease Division of the State Board of Health and has accepted the position of City Health Commissioner of Greenville.

Dr. David P. Reese is now associated with Dr. Asa M. Scarborough of Greenville.

The regular meeting of the Medical Society of S. C. (Charleston) was held on March 11th with Mr. M. L. Meadors, Director of Public Relations and Counsel of the State Association, as guest speaker. The scientific paper was presented by Dr. F. A. Hoshall, "Tumors of Tendon Sheaths of the Hand."

A special meeting of the Medical Society of S. C. was held on March 18. The subject for discussion



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was the financial condition of Roper Hospital and after considerable discussion, the following resolution was passed, "That the Society expresses its confidence in the Board of Commissioners and in their activities and policies, and that the Board of Commissioners be instructed to enter into no agreement under which the services or finances of Roper Hospital would be jeopardized."

TRIBUTE TO DR. CHARLES R. MAY, SR.

Dr. May, Sr. departed this worldly life on the twenty-first of January, 1947, and in his passing not only Marlboro County but also South Carolina has lost one of its most highly esteemed and revered members of the medical profession.

In every sense of the word Dr. May, Sr. was a truly noble Christian gentleman and woven into the warp and woof of his character was his devotion to high ideals and there always burned within this man a spirit of friendliness and kindliness. He lived his life to the fullest and even on the day of his death he conducted his usual active practice until the call came.

His passing leaves a void in our midst which can never be filled, and we, the members of the Marlboro County Medical Society, hope that the sorrow and loneliness of his wife will be softened by our sympathy and by mutual realization with us that we should all be happy that Dr. May, Sr. at last is at rest in the peacefulness that we all hope to attain. We feel that the following lines are very appropriate in this case:

"He was a friend whose heart was good,
Who walked with men and understood,
His was a voice that spoke to cheer
And fell like music on the ear.
His was a smile men loved to see,
His was a hand that asked no fee
For friendliness or kindness done.
And now that he has journeyed on
His is a fame that never ends.
He leaves behind uncounted friends."

WHEREAS: In the death of Dr. Charles R. May, Sr., the Marlboro County Medical Society and the staff of the Marlboro County General Hospital realize that we have lost one of our most beloved members and at a recent staff meeting it was resolved that a tribute be written to Dr. May, Sr. and that a copy of this be incorporated in the minutes of the March staff meeting and in the minutes of the Marlboro County Medical Society, and that copies be sent to members of his family, the two county news papers for publication, and to the secretary of the South Carolina Medical Association.

Signed
William Evans, Jr., M.D.
Secretary Marlboro County Medical Society.

JOHN MORGAN SETTLE

Dr. John M. Settle, 42, died on March 25 in Roper Hospital of complications arising from burns received at his home in December.

Dr. Settle, one of Charleston's leading obstetricians, was a native of Inman. He held a teaching fellowship at the Medical College of the State of South Carolina.

Surviving him are his widow, the former Miss Katherine E. Bickley of Charleston, and one son, John Morgan Settle, Jr.

WOMAN'S AUXILIARY
SOUTH CAROLINA MEDICAL ASSOCIATION

President: Mrs. S. Harry Ross, Anderson, S. C. Publicity Secretary: Mrs. J. R. Young, Anderson, S. C.

MEDICAL AUXILIARY HONORS HUSBANDS ON DOCTOR'S DAY; MRS. THACKSTON HEADS EDISTO MEDICAL AUXILIARY

On Thursday evening at River's Turn, the country home of Dr. and Mrs. L. P. Thackston, the members of the Edisto Medical Auxiliary entertained their husbands at a delightful supper, the occasion being Doctor's Day.

The living room was decorated with lovely arrangements of plum blossoms combined with the fresh green leaves of pear trees just budding. Throughout the other rooms were arrangements of pine and other evergreens. Mrs. Preston Cone and Mrs. Wells Brabham were co-chairmen of committees for the delightful occasion.

A delicious barbecue supper was served buffet style, with tables arranged in the spacious living room. Enjoyable records furnished dinner music, and Dr. A. L. Black of Bowman, renowned as a story-teller entertained with some of his amusing anecdotes.

After the dinner, the Auxiliary held a short business session and the following officers were elected to serve for the coming year:

President—Mrs. L. P. Thackston.
Vice-president—Mrs. J. H. Gressette.
Sec'y. and Treas.—Mrs. Preston Cone.

Among those from out-of-town present at the supper were Dr. and Mrs. A. L. Black of Bowman, Dr. and Mrs. Richard Johnston of St. George, Dr. and Mrs. Lionel Wells, of Holly Hill, and Dr. and Mrs. B. M. Mixson, of Branchville.

LAST CALL for reservations for the Twenty-fourth Annual Convention of the Woman's Auxiliary to the American Medical Association, which will be held at Haddon Hall Hotel, Atlantic City, New Jersey.

ATLANTIC CITY EXTENDS A HEARTY WELCOME TO YOU.

PEE DEE MEDICAL AUXILIARY LUNCHEON

The Pee Dee Medical Auxiliary met on Thursday at the Florence Country Club, with a delicious luncheon preceding the meeting. Mrs. John D. Smyser gave the invocation.

The tables were lovely with silver bowls of daffodils tastefully arranged by Mrs. O. T. Finklea and Mrs. Julian Price.

Mrs. Smyser presenter Mrs. Al Walsh who in her gracious manner sang "A Heart That's Free" and

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After the reading of the minutes, Mrs. Robert Stith, Jr., Legislative Chairman, read the Constitution, and it was adopted as read.

The president, Mrs. W. R. Mead, welcomed the new members and it was announced that the Pee Dee Medical Auxiliary now has ninety-one members. Mrs. Mead appointed the following chairmen:

Historian ---------- Mrs. W. J. Beasley, Hartsville
Todd Crawford Memorial------Mrs. C. R. May, Jr., Bennettsville
Public Relations and Bulletin----Mrs. E. C. Hood, Florence
Hygeia ---------- Mrs. Joe Cain, Mullins
Legislative -------- Mrs. Robert Stith, Jr., Florence

Mrs. J. M. Willcox, Darlington, as chairman of the nominating committee for delegates to State Convention asked the following ladies to serve:
Mrs. Paul Barnes, Marlboro
Mrs. W. L. Perry, Chesterfield
Mrs. Frank L. Carpenter, Dillon
Mrs. J. A. Sassa, Horry
Mrs. C. C. Hill, Darlington

The Pee Dee Auxiliary is to serve as hostess to the state auxiliaries at the State Convention May 6, 7, and 8 at Myrtle Beach. Mrs. J. A. Sassa of Conway, Chairman for the convention, told of her plans for the auxiliary and asked that the vice-president of each county serve as Registration Committee with headquarters in the Hotel Ocean Forest, at Myrtle Beach.

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